NuDat

Alejandro Sonzogni
National Nuclear Data Center

BROOKHAVEN
NATIONAL LABORATORY

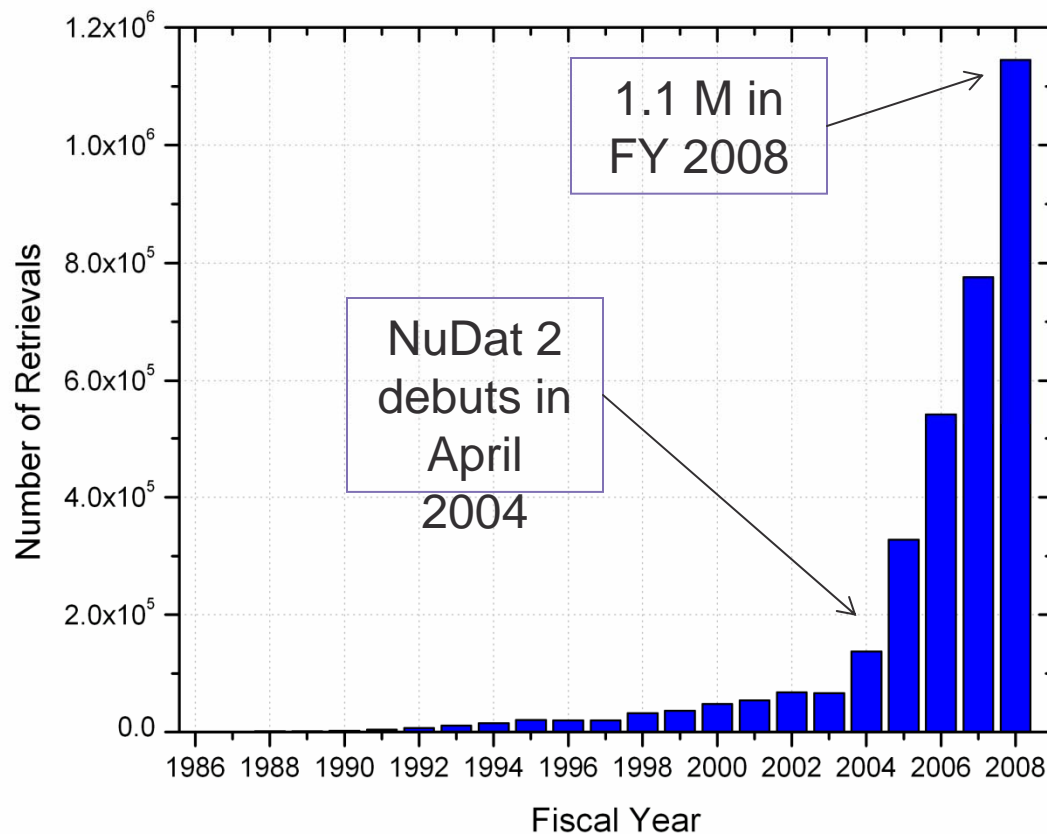*a passion for discovery*

Office of
Science
U.S. DEPARTMENT OF ENERGY

NuDat 2.4 Contents

Number of nuclides	3,175
Number of levels	152,425
Number of levels with $T_{1/2}$	22,407
Number of levels with $J\pi$	113,829
Number of gamma-rays	227,562
Number of γ-γ coincidences	2,846,423

No major releases in FY 2008 (v2.4 released in 09/07)

Many minor software upgrades in FY08, as well as content changes motivated by user's comments, particularly on Decay data

NuDat 2.4 Dissemination Statistics

23 years of electronic access.

1 Million retrievals for the first time.

On average, 10 monthly e-mails from non-NSDD users – some very difficult to answer!

~ 60 % of all NNDC retrievals.

Used in national labs, research organizations, universities.

What will be new for NuDat 2.5?

Current 2D-color codes:

Currently $T_{1/2}$ and predominant decay mode.
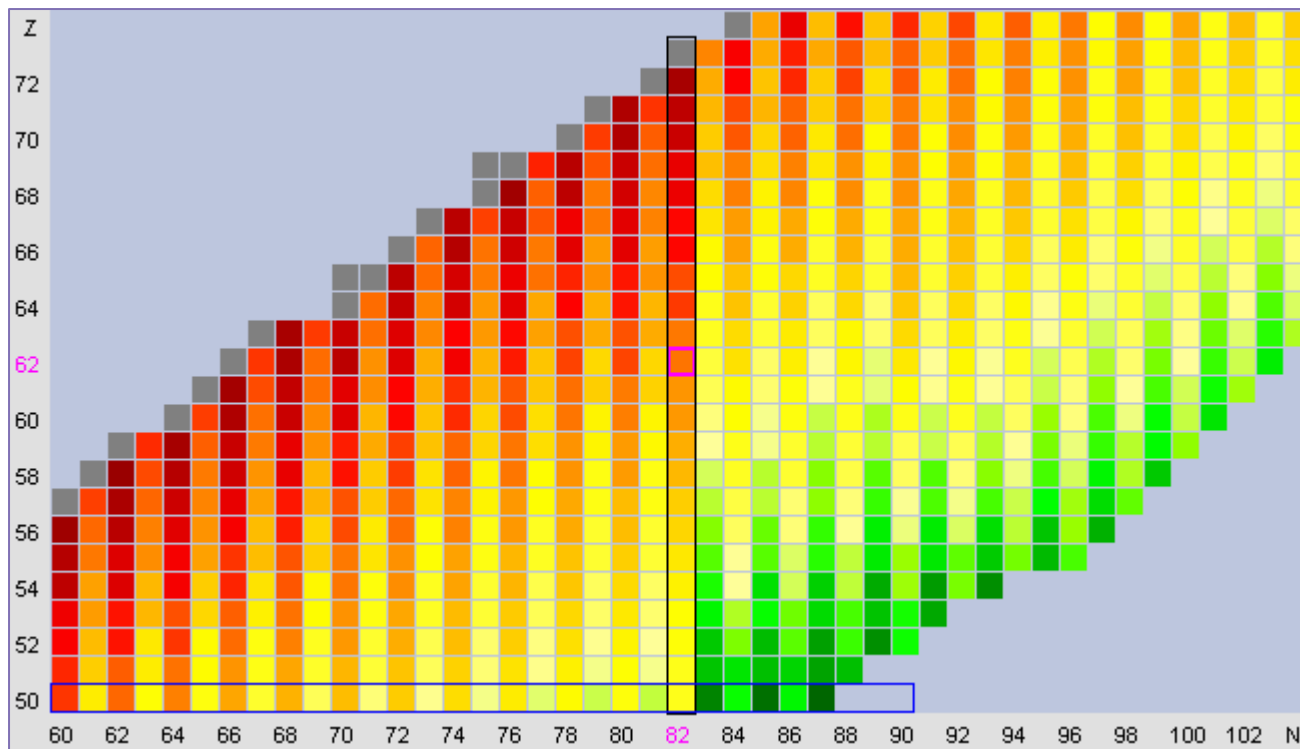
More possibilities:

Sn, Sp, Qα, Q(β-), Q(EC), Q(2β-), Q(2EC) from Audi 03

Atomic Mass minus Liquid Drop Model Fit (Audi03 based)
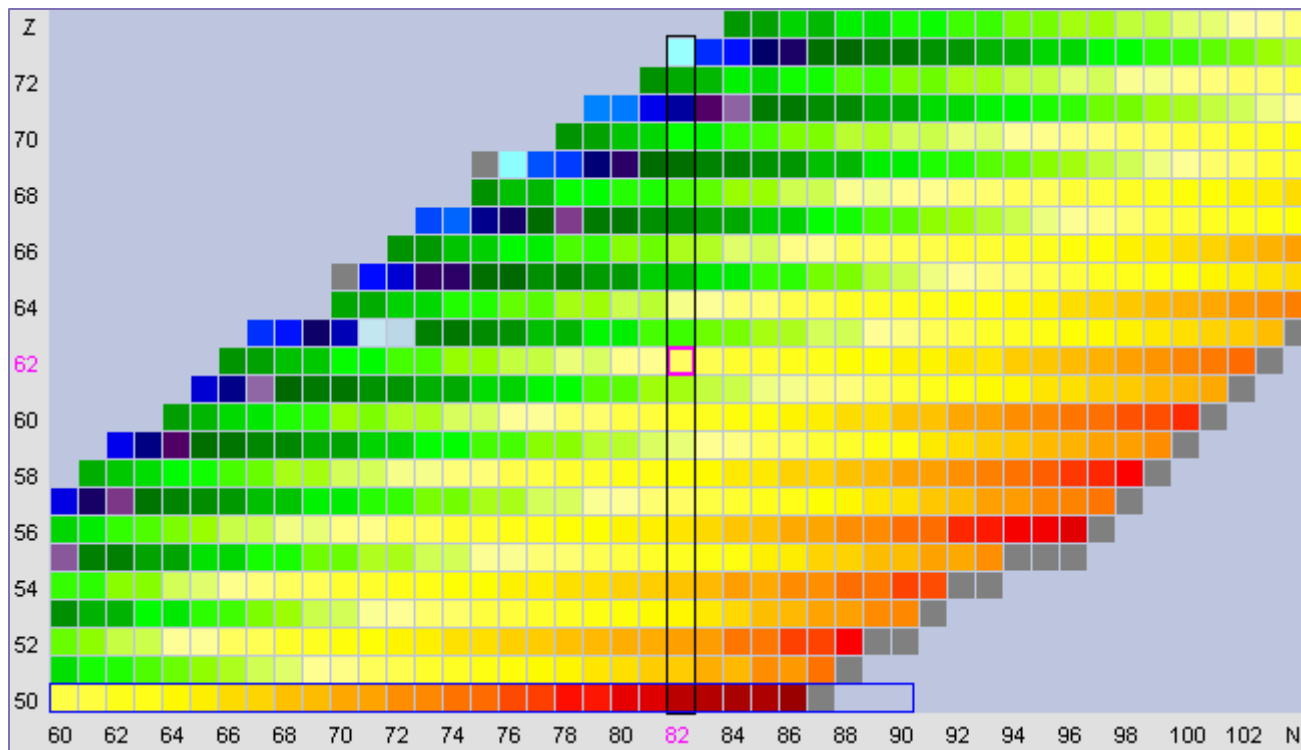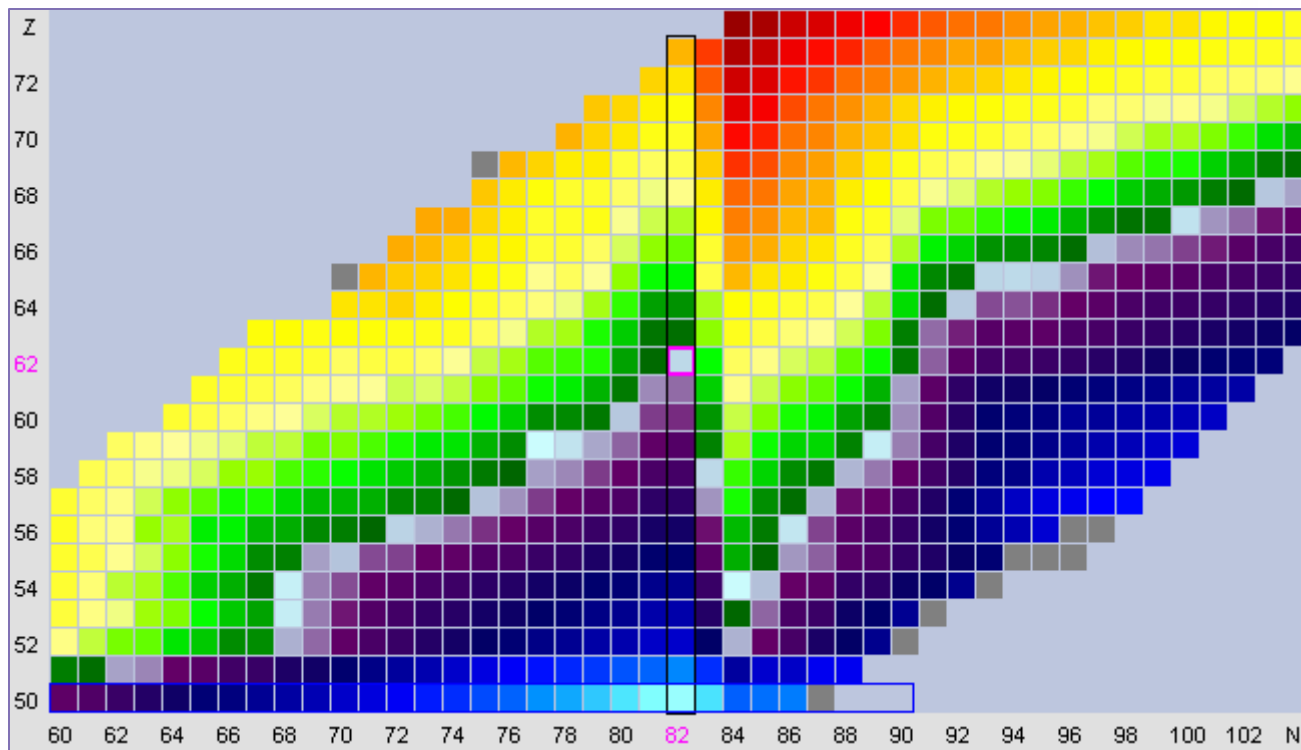
E2+, B(E2) from ENSDF

Suggestions?

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Sn – neutron separation energy

Notice:

Zoom Level=3, Chart centered on 144Sm, N=82 is marked, Z=50 also marked
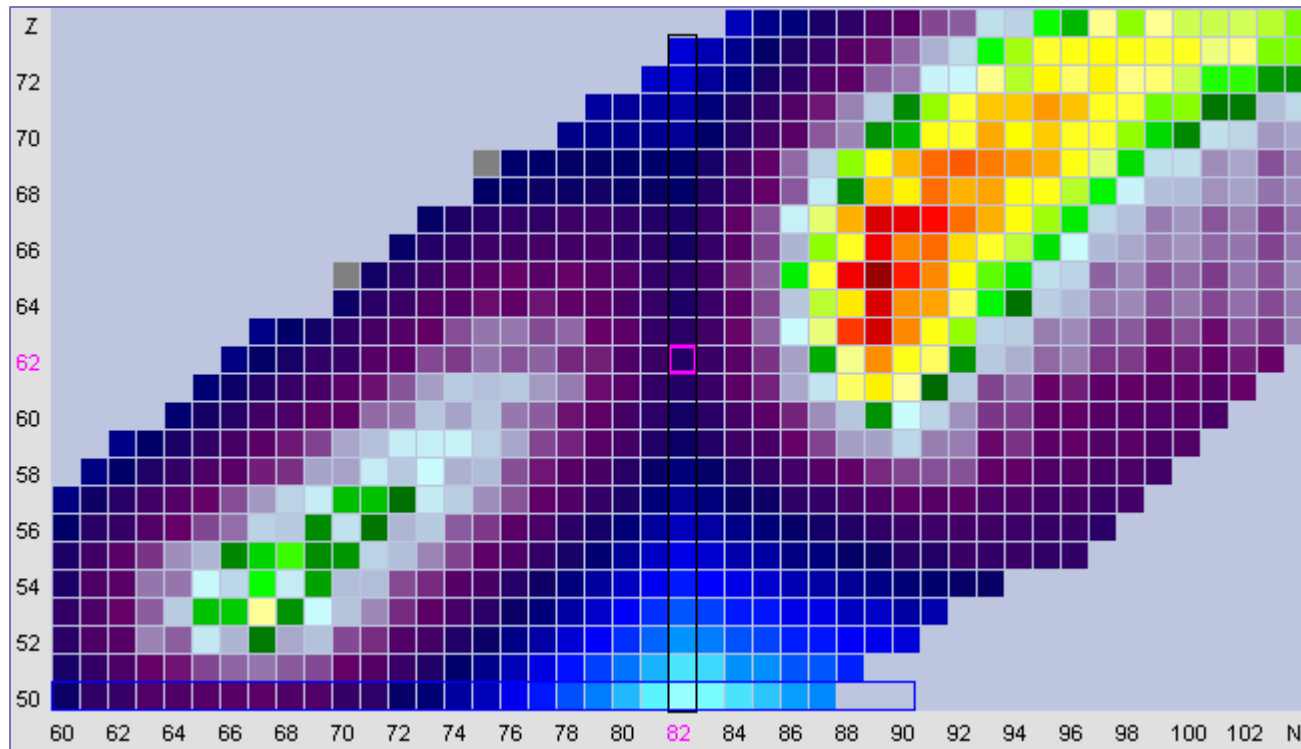
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Sp – proton separation energy

Qα – alpha Q-value

BE-LDM – Binding E. – Liquid Drop Model Fit

This type of programming is type consuming, expected release before February 2009

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